

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Gregory Franke et al.

Application No.: 10/680,330

Filing Date: 12/14/01

Title: EASILY REMOVED HEATSINK CLIP

Confirmation No.:

Examiner: Sakran, Victor N.

Group Art Unit: 3677

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 12/22/04.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

() (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

() one month	\$120.00
() two months	\$450.00
() three months	\$1020.00
() four months	\$1590.00

() The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Number of pages: 15

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Signature: John M. Rariden

Respectfully submitted,

Gregory Franke et al.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Gregory C. Franke et al.

Serial No.: 10/680,330

Filed: October 7, 2003

For: EASILY REMOVED HEATSINK
CLIP

Group Art Unit: 3677

Examiner: Sakran, Victor N.

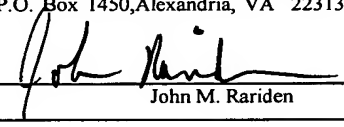
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John M. Rariden

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal mailed on December 22, 2004, and received by the Patent and Trademark Office on December 27, 2004.

Fee and General Authorization for Extensions of Time

In accordance with 37 C.F.R. § 1.136, Appellants hereby authorize the Commissioner to charge the requisite fee of \$500.00, and any additional fees which may be required, to Account No. 08-2025, Order No. 200302308-2/SWA (COMP:0280-1). Further, Appellants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Accordingly,

Appellants authorize the Commissioner to charge the appropriate fee for any extension of time to the above-referenced Deposit Account.

1. **REAL PARTY IN INTEREST**

The real party in interest is Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas and the Assignee of the above-referenced application. The Assignee of the above-referenced application will be directly affected by the Board's decision in the pending appeal.

2. **RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellants' legal representative in this Appeal.

3. **STATUS OF CLAIMS**

Claims 1-9 and 13-25 were previously canceled. Claims 10-12 and 26-33 are currently pending. Of the currently pending claims, claims 10-12 are currently allowed and claims 26-33 are currently under final rejection and, thus, are the subject of this appeal.

4. **STATUS OF AMENDMENTS**

Appellants have not submitted any amendments subsequent to the Final Official Action mailed on November 8, 2004.

5. **SUMMARY OF CLAIMED SUBJECT MATTER**

A summary of the subject matter on appeal, along with supporting references to the specification and figures of the present application, is as follows:

Independent claim 26 recites a retainer clip (58) comprising a clip body (82). Application, Figs. 2-4, page 8, lines 9-12. The retainer clip (58) also comprises two retaining arms (86, 90) extending outward from the clip body (82) in a first direction.

Application, Figs. 2-4, page 8, lines 12-15. In addition, the retainer clip (58) comprises two removal arms (98, 102) configurable to extend outward from the clip body (82) in a second direction substantially opposed to the first direction. Application, Figs. 2 and 4, page 7, lines 16-20, page 8, lines 22-23, page 13, lines 7-10, 20-21. One of the removal arms (102) is disposed in a substantially central region of the clip body (82).

Application, Figs. 2 and 4, page 9, lines 5-6.

Claim 27 depends from claim 26 and recites that the two retaining arms (86, 90) are offset from one another. Application, Figs. 2-4, page 8, lines 12-15. Claim 28 depends from claim 26 and recites that the two removal arms (98, 102) are offset from one another such that, when configured to extend outward from the clip body (82) in the second direction, a force applied to bring the two removal arms (98, 102) together distorts the clip body (82). Application, Figs. 2 and 4, page 12, lines 16-19 and page 13, lines 7-10, 20-23. Claim 33 depends from claim 26 and recites that the clip body (82), the two retaining arms (86, 90), and the two removal arms (98, 102) all comprise a single piece. Application, page 9, lines 1-3.

Claim 29 depends from claim 26 and recites that at least one removal arm (102) is rotatable relative to the clip body (82). Application, Figs. 2 and 3, page 9, lines 12-14. Claim 30 depends from claim 29 and recites that the at least one rotatable removal arm (102) rotates between a locked position wherein the rotatable removal arm (102) does not extend outward from the clip body (82) and an unlocked position wherein the rotatable removal arm (102) does extend outward from the clip body (82). Application, Figs. 3 and 4, page 10, lines 21-23 and page 13, lines 7-10. Claim 31 depends from claim 30 and recites that the at least one unlocked rotatable removal arm (102) is squeezable together with the remaining removal arm (98) such that the clip body (82) is distorted. Application, page 12, lines 16-19 and page 13, lines 20-23. Claim 32 also depends from claim 30 and recites one or more runners (134) extending from the rotatable removal arm (102) such that the one or more runner (134) protrude past the clip body (82) when the rotatable removal arm (102) is locked. Application, Figs. 2 and 3, page 11, lines 10-17.

6. **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Appellants respectfully urge the Board to review and reverse the Examiner's ground of rejection in which the Examiner rejected claims 26-33 under 35 U.S.C. § 103(a) as being rendered obvious by U.S. Patent No. 6,061,239 to Blomquist ("Blomquist" or "the Blomquist reference") in view of U.S. Patent No. 6,108,207 to Lee ("Lee" or "the Lee reference").

7. **ARGUMENT**

As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under Section 103. Accordingly, Appellants respectfully request full and favorable consideration by the Board, as Appellants strongly believe that claims 26-33 are currently in condition for allowance.

Ground of Rejection:

The Examiner rejected claims 26-33 under 35 U.S.C. § 103(a) as being unpatentable over the Blomquist reference in view of the Lee reference. Accordingly, Appellants request the Board overturn the rejection and allow the rejected claim 26 and all claims depending therefrom.

A. Legal Precedent and Standard for a *Prima Facie* Obviousness Rejection.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes all of the claimed elements, but also a

convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

B. Claim 26 and Dependent Claims 27-33 are Patentable over Blomquist and Lee.

Independent claim 26 recites:

A retainer clip, comprising:
a clip body;
two retaining arms extending outward from the clip body in a first direction; and
two removal arms configurable to extend outward from the clip body in a second direction substantially opposed to the first direction, wherein one removal arm is disposed in a substantially central region of the clip body.

1. The Examiner's Rejection.

In the rejection of independent claim 26, the Examiner asserted that the Blomquist reference discloses all of the recited features except that it does not disclose "an additional removal arm extending outwardly from the clip and adapted to be pinched in order to disengage the tabs while the rotatable arm in the unlocked position." *See* Final Official Action mailed November 8, 2004, p. 3. In an attempt to cure this deficiency, the Examiner relied upon the Lee reference to disclose this missing subject matter.

However, despite the Examiner's assertions, the Blomquist and Lee references fail to render the claimed subject matter obvious. First, the Blomquist and Lee references

fail to disclose or suggest “[a] removal arm [] disposed in a substantially central region of the clip body,” as recited in claim 26. For this aspect of the recitation, the Examiner appears to rely on the Blomquist reference however, as discussed below, Blomquist does not disclose such a removal arm. *See* Final Official Action mailed November 8, 2004, p. 3. Similarly, Lee does not disclose such a removal arm. Second, aspects of the Lee reference specifically teach away from the proposed combination relied upon by the Examiner. Third, the Examiner’s rationale for combining the references appears to be based purely on the hindsight gained from the present application, not on the teachings supported by evidence in the art. Hence, the Blomquist and Lee references are improperly asserted against the claimed subject matter and cannot render the claimed subject matter obvious.

2. References Fail to Disclose or Suggest a Retainer Clip Having a Removal Arm Disposed in a Substantially Central Region of the Clip Body.

With regard to the first point, Appellants note that the Examiner relied on the Blomquist reference to disclose a removal arm and relied on the Lee reference to disclose the “additional” removal arm. *See* Final Official Action mailed November 8, 2004, p. 3. Blomquist does not, however, disclose the removal arm alleged by the Examiner but instead discloses a cam-type latch (60) used to apply bias to a heat sink (20) when the retainer clip (30, 31) is in place. Furthermore, even if the cam-type latch (60) were to be construed in the manner suggested by the Examiner, it would be unsuitable, as disclosed and described by Blomquist, for the purpose suggested by the Examiner. In addition, construing the cam-type latch (60) in the manner suggested by the Examiner constitutes an impermissible change in the principle of operation of the retaining clip (30, 31) of Blomquist. In particular, an additional removal operation which is not discussed or disclosed by Blomquist is attributed to the reference. Furthermore, the Lee reference does not disclose a removal arm disposed in a substantially central region of the clip body and, therefore, cannot obviate this deficiency of the Blomquist reference.

In regard to the above points, Blomquist does not disclose a removal arm, as asserted by the Examiner, but only an arm (65) of a cam-type latch (60) used to force a heat sink into heat conducting engagement with a device to be cooled. *See* Blomquist, col. 3, lines 20-32, col. 5, lines 5-6, 23-28. The Examiner has attempted to extrapolate from the description in Blomquist that the cam-type latch (60) is part of a removal mechanism of the clip (30, 31), stating:

... and a cam latch-type rotatable arm extending outwardly from the clip body (40) and adapted to be rotated between a locked position and an unlocked position such that the locked position causing a securing force to be applied to the heat sink component which is disposed between the clip and the bottom wall and for disengaging the heat sink the rotatable arm will be rotated to the unlocked position causing the connector members (tabs) (50,51) to be released from the bottom wall (12) in order to disengage the heat sink.”

Final Official Action mailed November 8, 2004, p. 3.

The Examiner’s assertions, however, are unsupported by the Blomquist reference, which is entirely silent as to what, if any, mechanism is provided for removing the retainer clip, i.e., the Blomquist reference does not disclose *any* removal arms.

Instead, the position of the arm (65) of the cam-type latch (60) relied upon by the Examiner only determines whether a biasing force is applied to the heat sink or not. *See* Blomquist, col. 3, lines 20-32, col. 5, lines 5-6, 23-46. Indeed, Figs. 8 and 9 of the Blomquist reference clearly demonstrate that the movement of the cam-type latch 60 does *not* disengage the hook portions 44, 45 from the wall 12, as asserted by the Examiner, but only applies or releases pressure on the heat sink base 24. For the Examiner to read the disclosure of a “removal arm” into the Blomquist disclosure when such an arm is neither disclosed or suggested is improper.

Furthermore, the cam-type latch (60) of the Blomquist reference appears to be unsuitable for the purpose proposed by the Examiner, i.e., for use as a pinchable removal mechanism. *See* Final Official Action mailed November 8, 2004, pp. 3-4. Figures 4 and 5 of the Blomquist reference clearly depict that the cam-type latch (60) is angled in the direction of the proposed pinching force and contains two extensions (67, 68) that extend in an opposing direction to the proposed pinching force. In effect, the Examiner is arguing that an angled cam arm (60) with extensions (67, 68) which would push into the flesh of a user is suitable to be pinched with a force sufficient to distort the clip body adequately to disengage the clip. Instead, to permit the use proposed by the Examiner, the cam-type latch (60) would need to be redesigned to configure the cam-type latch (60) for use as a pinchable disengagement mechanism. In view of the redesign to the cam-type latch (60) which the use proposed by the Examiner would entail, the Appellants respectfully assert that neither the Blomquist reference disclose a removal arm disposed in a substantially center region of the clip body, as recited in claim 26.

Moreover, according to *In re Ratti*, if the proposed modification or combination of the prior art would *change the principle of operation of the prior art invention being modified*, then teachings of the reference are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959). *See also* M.P.E.P. § 2143.01. In the present context, use of the cam-type latch (60) as part of a *removal operation*, as proposed by the Examiner, is not discussed, described, or disclosed by the Blomquist reference and cannot be considered part of the principle of operation of the clip. Instead, as noted above, the principle behind the operation of the Blomquist reference involves rotating the cam-type latch (60) between two positions such that in one position it causes the cam to apply pressure to a heat sink and in the other position it does not. *See* Blomquist, Figs. 8 and 9 and col. 3, lines 28-32 and col. 5, lines 23-46. Reading additional operational functionality into the Blomquist reference (such as attributing use in a removal operation to the cam-type latch (60)) when no such principle of operation is present in the reference constitutes an impermissible change in the principle of operation of the reference.

In addition, the Lee reference does not address this deficiency of the Blomquist reference. In particular, The Lee reference discloses a retainer clip (10) having a curved spring portion (14) centrally disposed on the clip (10). Lee, Figs. 1, 3, 4, col. 3, lines 20-28 and 36-41. It is the spring portion (14) that provides the resilience to bias the heat sink 20 in the clip (10) of the Lee reference. Lee, col. 3, lines 36-41 and col. 4, lines 41-45. No removal arm is disclosed or described as part of the spring portion (14), i.e., in a substantially central region of the clip body, and, due to the particular function attributed to this region by Lee, such a modification would presumably not be desirable. In view, therefore, of the deficiency of the Blomquist and Lee references to disclose a removal arm disposed in a substantially central region of the clip body, as recited in claim 26, the Appellants respectfully note that no *prima facie* case of obviousness exists with regard to claims 26-33.

3. The References teach away from the suggested combination.

With regard to the second point, the Blomquist and Lee references teach away from one another and it has been held improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). In particular, “[a]n applicant may rebut a *prima facie* case of obviousness by showing that the prior art teaches away from the claimed invention in any material respect.” *In re Peterson*, 315 F.3d 1325, 65 U.S.P.Q.2d 1379, 1384 (Fed. Cir. 2003).

In particular, turning to the cited references, Lee teaches away from a combination with the Blomquist reference. For example, the Lee disclosure addresses numerous problems which the reference attributes to the prior art, including problems associated with clips assembled from separately manufactured parts, such as those described in Blomquist. *See* Lee, col. 1, line 63 to col. 2, line 7. To this end, the Lee reference discloses a clip (10) that is *integrally formed* to provide sufficient retention

force for securely retaining a heat sink. *See* Lee, col. 2, line 23; col. 4, lines 41-45. To the contrary, the Blomquist reference discloses a clip (30, 31) formed from *multiple parts* (i.e., not integrally formed), including a *metallic strap* (40) and a *cam-type latch* (60). *See* Blomquist, col. 4, lines 47-48.

Indeed, the Examiner never explains how the hinged and rotatable cam-type latch (60) of Blomquist could be constructed so as to satisfy the directives of Lee to integral formation. Absent such an explanation by the Examiner, the Appellants are unaware of any means for forming a cam-type latch, or any other mechanism that rotates on a hinge, integrally with the hinge itself. The Examiner suggests that this would be obvious to one of ordinary skill in the art but fails to provide rational basis for this assertion, which would appear to run contrary to basic mechanical principles. For these reasons, the cited references clearly teach away from one another and, thus, are not properly combinable.

Furthermore, the structures and mounting mechanisms disclosed by the Blomquist and Lee references are fundamentally different and incompatible. Appellants respectfully note that prior art references must be considered in their entirety. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). The Blomquist reference discloses a *multiple* component clip with a *flat* center portion *and a cam-type latch* for engaging the heat sink. Blomquist, col. 4, lines 44-56 and col. 3, lines 28-32. The Lee reference discloses an *integrally formed* clip with a *curved* spring portion. Lee, col. 2, lines 22-33. The curved spring portion in the Lee reference has a “central arcuate section for providing resiliency thereof *to ensure an intimate contact between the spring portion and the heat sink*” while the cam-type latch of Blomquist is used to provide such contact. Blomquist, col. 3, lines 28-32 and col. 5, lines 23-34 and Lee, col. 3, lines 35-41. Accordingly, the Examiner’s proposed combination of the flat center portion and cam-type latch of Blomquist with the curved spring portion of Lee would *change the principle of operation of each prior art*

invention being modified and render each unsatisfactory for its intended purpose.

Therefore, the highly disparate principles of operation of the references as well as their extensive structural dissimilarities teach away from the combination suggested by the Examiner. For these reasons, the cited references are not properly combinable.

4. The Examiner's Rational is unsupported by the References.

Furthermore, as noted above, when prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

In addition to the missing recited features and the contrary teachings discussed above, the Examiner's rationale for combining the references does not appear to be based on the teachings in the references themselves. Indeed, the Examiner appears to provide no motivation for the asserted combination of the Blomquist and Lee references, from the references or otherwise, other than that "the references clearly tech [sic] the use of a retainer clip comprising a plurality of arms including connector members for securing a heat sink to a main body supporting surface." *See* Final Official Action mailed November 8, 2004, pp. 2-4 and Official Action mailed May 26, 2004, p. 6. The Appellants are unable to see, however, how the Examiner's observation constitutes a suggestion or a motivation to combine the Blomquist and Lee references in any manner, much less the manner proposed by the Examiner.

Indeed, it appears that the Examiner asserts that the suggested motivation can be justified solely by the statement that the proposed "modification involves only routine skill in the art." *See* Final Official Action mailed November 8, 2004, p. 4. The Appellants contend that this statement is *not* sufficient to constitute a suggestion or

motivation to combine the references in the manner proposed. Furthermore, the Examiner's apparent disregard for developing this aspect of a *prima facie* case of obviousness strongly suggests that the Examiner is incorrectly equating simplicity with obviousness. However, as noted by the Federal Circuit, "[s]implicity alone is not determinative of obviousness." *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 45 U.S.P.Q.2d 1498, 1502 (Fed. Cir. 1998). *See also In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992) (stating, "[s]implicity is not inimical to patentability"). Therefore, any apparent simplicity perceived by the Examiner in no way obviates the Examiner's obligations to properly support the applied combination of references.

Regardless of the Examiner's state of mind as to the simplicity of the present invention, the structural dissimilarities between the Blomquist and Lee retainer clips as well as the highly selective combination proposed by the Examiner strongly suggest that the Examiner has impermissibly relied on hindsight to deprecate the claimed subject matter. The absence of any ascertainable motivation or suggestion for the combination strengthens this perception as the only motivation for the combination of Blomquist and Lee appears to lie in the teachings of the present application. Indeed, the Examiner has not provided any evidence of suggestion by the prior art references that any proposed advantage would be expected from the combination, other than meeting the claim recitations of claim 26. Accordingly, because no teaching or suggestion supporting the combination is present, the Examiner's proposed combination is unsupported speculation and therefore is not proper.

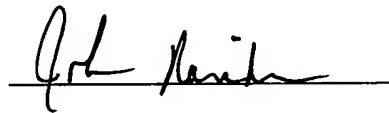
For at least these reasons, the Blomquist and Lee references cannot be properly combined to render claim 26 obvious. Accordingly, Appellants request that the Board overturn the rejection and indicate the allowability of pending claim 26, as well as those claims depending therefrom.

CONCLUSION

In view of the above remarks, Appellants respectfully submit that the Examiner has provided no supportable position or evidence that claims 26-33 are rendered obvious in view of the prior art. Accordingly, Appellants respectfully request that the Board find claims 26-33 patentable over the prior art of record and reverse all outstanding rejections.

Respectfully submitted,

Date: February 23, 2005

A handwritten signature in black ink, appearing to read "John M. Rariden", is written over a horizontal line.

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8. **APPENDIX OF CLAIMS ON APPEAL**

26. A retainer clip, comprising:
a clip body;
two retaining arms extending outward from the clip body in a first direction; and
two removal arms configurable to extend outward from the clip body in a second direction substantially opposed to the first direction, wherein one removal arm is disposed in a substantially central region of the clip body.

27. The retainer clip as recited in claim 26, wherein the two retaining arms are offset from one another.

28. The retainer clip as recited in claim 26, wherein the two removal arms are offset from one another such that, when configured to extend outward from the clip body in the second direction, a force applied to bring the two removal arms together distorts the clip body.

29. The retainer clip as recited in claim 26, wherein at least one removal arm is rotatable relative to the clip body.

30. The retainer clip as recited in claim 29, wherein the at least one rotatable removal arm rotates between a locked position wherein the rotatable removal arm does not extend outward from the clip body and an unlocked position wherein the rotatable removal arm does extend outward from the clip body.

31. The retainer clip as recited in claim 30, wherein the at least one unlocked rotatable removal arm is squeezable together with the remaining removal arm such that the clip body is distorted.

32. The retainer clip as recited in claim 30, further comprising one or more runners extending from the rotatable removal arm such that the one or more runner protrude past the clip body when the rotatable removal arm is locked.

33. The retainer clip as recited in claim 26, wherein the clip body, the two retaining arms, and the two removal arms all comprise a single piece.